Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A barley plant, or a part thereof, comprising less than 5% of the LOX-1 activity of a wild-type barley plant.

2. (original) The barley plant, or a part thereof, according to claim 1, wherein said part of said barley plant is kernel(s).

3. (original) The barley plant, or a part thereof, according to claim 1, wherein the embryos of said plant comprise less than 5% of the LOX-1 activity of the embryos of a wild-type barley plant.

4. (original) The barley plant, or a part thereof, according to claim 1, wherein said plant or part thereof comprises less than 1% LOX-1 protein compared to a wild-type barley plant.

5. (original) The barley plant, or a part thereof, according to claim 1, wherein said plant is produced by a method comprising the steps of; or said plant is progeny of a plant produced by a method comprising the steps of:
   - *(i)* determining the LOX-1 activity in wild-type barley kernels or parts thereof; and
   - *(ii)* mutagenizing barley plants, and/or barley kernels, and/or barley embryos, and/or barley cells and/or barley tissue, thereby obtaining barley of generation M0; and
   - *(iii)* breeding said mutagenized barley plants, kernels, cells, tissue and/or embryos, for at least 2 generations, thereby obtaining barley plants of generation Mx, wherein x is an integer ≥ 2; and
   - *(iv)* obtaining kernels or parts thereof from said barley plants of generation Mx; and
   - *(v)* determining the LOX-1 activity in said kernels or parts thereof; and
   - *(vi)* selecting plants wherein the LOX-1 activity of the mutagenized kernels or parts thereof is less than 5% than the LOX-1 activity of the wild-type kernels or part thereof.

(currently amended) [[5]] 6. The barley plant, or a part thereof, according to claim 1, wherein the gene encoding LOX-1 of said plant comprises a premature nonsense codon.

(currently amended) [[6]] 7. The barley plant, or a part thereof, according to ~~claim 5~~ claim 1, wherein the gene encoding LOX-1 of said plant comprises a nonsense codon, said codon corresponding to base no.s 3572–3574 of SEQ ID NO: 2.

(currently amended) [[7]] 8. The barley plant, or a part thereof, according to ~~claim 6~~ claim 7, wherein said plant ~~is selected from the group consisting of plants~~ designated D112 having American Type Culture Collection (ATCC) deposit accession No. PTA-5487~~, and progeny~~ or a progeny plant[[s]] thereof.

(currently amended) [[8]] 9. The barley plant, or a part thereof, according to claim 1, wherein the gene encoding LOX-1 of said plant comprises at least one mutation within a splice site.

(currently amended) [[9]] 10. The barley plant, or a part thereof, according to ~~claim 8~~ claim 9, wherein the gene encoding LOX-1 of said plant comprises a splice site mutation, said mutation corresponding to base no. 2311 of SEQ ID NO: 6.

(currently amended) [[10]] 11. The barley plant, or a part thereof, according to ~~claim 9~~ claim 10, wherein said plant is ~~selected from the group consisting of plants~~ designated A618 having ATCC deposit accession No. PTA-5584~~, and~~ or a progeny plant[[s]] thereof.

(currently amended) [[11]] 12. The barley plant, or a part thereof, according to claim 1, wherein said plant is characterized by:

(i) having enhanced disease resistance; or

(ii) having reduced potential for the production of mycotoxins; or

(iii) comprising regenerable cells for use in tissue culture; or

(iv) any combination of the traits of *(i)* to *(iii)*.

(currently amended) [[12]] 13. The barley plant, or a part thereof, according to ~~claim 11~~ claim 12, further characterized by the presence of a gene encoding LOX-1, wherein said gene comprises:

(i) a premature nonsense codon; or

(ii) a splice site mutation.

(currently amended) [[13]] 14. The barley plant according to ~~claim 12~~ claim 13, further characterized by the presence of a gene encoding LOX-1, said gene comprising:

(i) a nonsense codon corresponding to base no.s 3572–3574 of SEQ ID NO: 2; or

(ii) a splice site mutation corresponding to base no. 2311 of SEQ ID NO: 6.

(currently amended) [[14]] 15. A composition comprising the barley plant or part thereof according to claim 1.

(currently amended) [[15]] 16. A malt composition comprising a processed barley plant or part thereof, wherein said barley plant is the barley plant according to claim 1.

(currently amended) [[16]] 17. The malt composition according to ~~claim 15~~ claim 16, wherein said part of said barley plant is kernel(s).

(currently amended) [[17]] 18. A wort composition prepared using the barley plant or part thereof according to claim 1 or using a malt composition prepared from said barley plant or part thereof or mixtures thereof.

(currently amended) [[18]] 19. The wort composition according to ~~claim 17~~ claim 18, wherein said part of said plant is kernel(s).

(currently amended) [[19]] 20. The wort composition according to ~~claim 17~~ claim 18, wherein said composition is prepared using an enzyme composition or an enzyme mixture composition.

(currently amended) [[20]] 21. A composition prepared from a mixture of *(i)* a composition comprising a barley plant or a part thereof, comprising less than 5% of the LOX-1 activity of a wild-type barley plant plant, and *(ii)* a malt composition according to ~~claim 15~~ claim 16.

(currently amended) [[21]] 22. A wort composition or a beverage prepared from the composition of ~~claim 20~~ claim 21.

(currently amended) [[22]] 23. A beverage having stable organoleptic qualities, wherein said beverage is obtained by manufacturing the barley plant or part thereof of claim 1.

(currently amended) [[23]] 24. The beverage according to ~~claim 22~~ claim 23, wherein said beverage is beer.

(currently amended) [[24]] 25. The beverage according to ~~claim 22~~ claim 23, wherein said beverage is prepared using malt prepared from kernels of said barley plant.

(currently amended) [[25]] 26. The beverage according to ~~claim 22~~ claim 23, wherein said beverage is prepared from a wort composition prepared from a barley plant or part thereof, or from a malt composition prepared from said barley plant or part thereof, wherein said barley plant comprises less than 5% of the LOX-1 activity of a wild-type barley plant.

(currently amended) [[26]] 27. The beverage according to ~~claim 22~~ claim 23, wherein said beverage is prepared from unmalted barley plants or parts thereof.

(currently amended) [[27]] 28. The beverage according to ~~claim 22~~ claim 23, wherein said beverage is a non-fermented beverage

(currently amended) [[28]] 29. The beverage according to ~~claim 22~~ claim 23, wherein said barley plant, or parts thereof, comprise a gene encoding LOX-1, said gene comprising:

(i) a nonsense codon; or

(ii) a splice site mutation.

(currently amended) [[29]] 30. The beverage according to ~~claim 28~~ claim 29, wherein the gene encoding LOX-1 comprises:

(i) a nonsense codon, said codon corresponding to base no.s 3572–3574 of SEQ ID NO: 2; or

(ii) a splice site mutation, said mutation corresponding to base no. 2311 of SEQ ID NO: 6.

(currently amended) [[30]] 31. A beverage having stable organoleptic qualities, wherein said beverage is manufactured by using a barley plant, wherein the ratio of 9,12,13–trihydroxyoctadecenoic acid to 9,10,13–trihydroxyoctadecenoic acid within said beverage is at the most 1.8.

(currently amended) [[31]] 32. The beverage according to ~~claim 30~~ claim 31, wherein said beverage is prepared by fermentation of a barley plant, or parts thereof, or extracts thereof, and wherein said barley plant comprises less than 5% of the LOX-1 activity of a wild-type barley plant.

(currently amended) [[32]] 33. The beverage according to ~~claim 30~~ claim 31, wherein said beverage is beer.

(currently amended) [[33]] 34. A beverage having stable organoleptic qualities, wherein said beverage is manufactured by using a barley plant, and wherein said beverage comprises at the most 0.05 ppb free *trans*-2-nonenal (T2N) after incubation at 37°C for 4 weeks, in the presence of in the range of 4 to 6 ppm sulfite.

(currently amended) [[34]] 35. The beverage according to ~~claim 33~~ claim 34, wherein the beverage is manufactured by fermentation of a barley plant, or parts thereof, or extracts thereof, and wherein said barley plant comprises less than 5% of the LOX-1 activity of a wild-type barley plant.

(currently amended) [[35]] 36. The beverage according to ~~claim 33~~ claim 34, wherein the ratio of 9,12,13–trihydroxyoctadecenoic acid to 9,10,13–trihydroxyoctadecenoic acid within said beverage is at the most 1.8.

(currently amended) [[36]] 37. The beverage according to ~~claim 33~~ claim 34, wherein said beverage is beer.

(currently amended) [[37]] 38. A plant product produced from the barley plant, or a part thereof, according to claim 1.

(currently amended) [[38]] 39. The plant product according to ~~claim 37~~ claim 38, wherein said plant product is a beverage.

(currently amended) [[39]] 40. A method of producing:

(i) a food composition; or

(ii) a feed composition; or

(iii) a fragrance raw material composition; or

(iv) any combinantion of *(i)* to *(iii);*

using a barley plant or part thereof according to claim 1.

(currently amended) [[40]] 41. A food composition, a feed composition, or a fragrance raw material composition comprising the barley plant or part thereof according to claim 1.

(currently amended) [[41]] 42. A method for expressing a recombinant protein in barley to obtain a barley plant according to claim 1, wherein said method comprises stably transforming said plant with a nucleic acid sequence comprising, as operably linked components, a promoter expressable in barley plants or parts thereof, a DNA sequence encoding said recombinant protein, and a transcriptional termination region.

(currently amended) [[42]] 43. A method of modulating levels of a protein in barley to obtain a barley plant according to claim 1, the method comprising stably transforming said plant with a nucleic acid sequence comprising, as operably linked components, a promoter expressable in barley plants, a DNA sequence, and a transcriptional termination region, wherein expression of said DNA sequence reduces the expression of a gene encoding said protein by:

(i) antisense silencing; or

(ii) co-suppression silencing; or

(iii) RNA interference.

(currently amended) [[43]] 44. A method of preparing the barley plant according to claim 1, the method comprising stably transforming a barley plant with a nucleic acid sequence comprising, as operably linked components, a promoter expressable in barley plants, a DNA sequence, and a transcriptional termination region, wherein expression of said DNA sequence reduces the expression of the gene encoding LOX-1 by:

(i) antisense silencing; or

(ii) co-suppression silencing; or

(iii) RNA interference.

(currently amended) [[44]] 45. A method of producing a beverage having stable organoleptic qualities, said method comprising the steps of:

(i) preparing a composition comprising a barley plant or parts thereof according to claim 1;

(ii) processing the composition of *(i)* into a beverage;

thereby obtaining a beverage with stable organoleptic qualities.

(currently amended) [[45]] 46. The method according to ~~claim 44~~ claim 45, wherein step (*i*) comprises preparing a malt composition from kernels of said barley plant or part thereof.

(currently amended) [[46]] 47. A method of producing a malt composition with low or no LOX-1 activity, said method comprising the steps of:

(i) providing kernels according to claim 2;

(ii) steeping said kernels;

(iii) germinating the steeped kernels under predetermined conditions;

(iv) treating germinated kernels with heat;

thereby producing a malt composition with no or low LOX-1 activity.

(currently amended) [[39]] 48. A method of preparing a barley plant comprising less than 5% of the LOX-1 activity of a wild-type barley plant comprising the steps of:

(i) determining the LOX-1 activity in wild-type barley kernels or parts thereof; and

(ii) mutagenizing barley plants and/or barley kernels and/or barley embryos and/or barley cells and/or barley tissue thereby obtaining generation M0 barley; and

(iii) breeding said mutagenized barley plants, kernels, cells, tissue and/or embryos for at least 2 generations, thereby obtaining generation Mx barley plants, wherein x is an integer ≥2; and

(iv) obtaining kernels or parts thereof from said Mx barley plants; and

(v) determining the LOX-1 activity in said kernels or parts thereof; and

(vi) selecting plants wherein the LOX-1 activity of the mutagenized kernels or parts thereof is less than 5% than the LOX-1 activity of the wild-type kernels or part thereof;

thereby obtaining a barley plant comprising less than 5% of the LOX-1 activity of a wild-type barley plant.

(currently amended) [[40]] 49. A method of preparing a barley plant comprising less than 5% of the LOX-1 activity of a wild-type barley plant, wherein the method comprises the steps of:

(i) mutagenizing barley plants, and/or barley kernels and/or barley embryos; and

(ii) optionally breeding said mutagenized barley plant/barley kernel/barley embryo; and

(iii) determining the presence or absence of a mutation in the barley gene encoding LOX-1, said mutation leading to a gene encoding a polypeptide form of LOX-1 comprising less than 700 contigous amino acids of the sequence set forth in SEQ ID NO: 3; and

(iv) selecting plants carrying the mutation provided in *(ii)*.